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EXAMINER

STERRETT, JONATHAN G

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,003

Applicant(s)

OJHA ET AL.

Examiner

Jonathan G. Sterrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10, 15-20 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10, 15-20 and 22-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This **Final Office Action** is responsive to applicant's amendment filed May 5, 2005. Applicant's amendment of May 5, 2005 cancelled **Claims 1, 11-14 and 21** and amended **Claims 2-10, 15-20 and 22-29**.

Currently **Claims 2-10, 15-20 and 22-29** are pending.

Response to Arguments

2. The applicant's arguments regarding Claim 4 have been fully considered, but they are not persuasive.

The applicant argues that the Official Notice taken is improper and **"the asserted facts are not supported by documentary evidence and appear to be based on opinions formulated using the present application as a template"**

However, the documentary evidence supporting the Official Notice is contained in **Johnston** (cited in the previous office action):

Johnston, Samuel, "Communicating with Sam – Disaster Recovery Planning and High Availability", Sept 1997, Toronto Users Group, Vol. 13, No. 1, pp.1-3, www.tug.on.ca/articles/volume13/v13n1/v13n1_sam_drp_ha.html.

Johnston teaches:

A primary and secondary system utilized to provide high availability through directing less important requests to the secondary system (i.e. node).

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Page 2 paragraph 5 line 4-6, a high availability strategy can be implemented using a primary and secondary system.

Page 3 paragraph 1 line 1-2, Flow control (i.e. applying queuing theory) through dispatching lower priority requests to the second node (i.e. secondary system).

The approach Johnston teaches **prioritizes messages** (i.e. requests) **according to whether they require modification to planning information or do not require modification to planning information.**

Page 3 paragraph 1 line 4-5, messages requiring modification to planning are high priority and include processing orders and running the factory. Messages not requiring modification to planning systems include such items as requests comprising an accounting backlog (e.g. entering expenses into the general ledger).

Johnston clearly provides the documentary evidence supporting the official notice because he teaches **two different systems** (a primary and a secondary nodes), **prioritizing messages according to those requiring modifying planning information** (processing orders and running the factory) **and those not requiring modifying planning information** (accounting backlog of requests). Johnston **prioritizes requests requiring modification to planning information higher than those not requiring modification to planning information** (see page 3 paragraph 1 line 4-5, not being able to handle requests requiring modification to planning information results in lost sales and

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lost customers) **and through this providing 'flow control'** (i.e. applying queuing theory) (page 3 paragraph 1 line 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-10 and 29** are rejected under 35 U.S.C. 103(a) as being anticipated by MAPICS software in view of Wong US 6,115,690.

MAPICS software is described in the following documents:

Web.archive.org's MAPICS.com webpage of February 29, 2000, "technology AS/400e", hereafter referred to as **Reference A**.

Web.archive.org's MAPICS.com webpage of November 9, 1999, "Future Directions", hereafter referred to as **Reference B**.

Web.archive.org's MAPICS.com webpage of November 5, 1999, "Products Overview", hereafter referred to as **Reference C**.

Web.archive.org's MAPICS.com webpage of November 4, 1999, "Products Demand", hereafter referred to as **Reference D**.

Web.archive.org's MAPICS.com webpage of November 5, 1999, "Resource Planning", hereafter referred to as **Reference E**.

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Bruce Wassell's www-919.ibm.com webpage copyrighted March, 1999, "MQSeries for AS/400 V5.1", hereafter referred to as **Reference F**.

Web.archive.org's MAPICS.com webpage of April 16, 2000, "MAPICS XA Product Family", hereafter referred to as **Reference G**.

Regarding **Claim 2**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

the HA systems are associated with a supplier of products

(Reference C page 3 paragraph 7 line 1-2, systems used to ensure proper supply of materials, labor and machine requirements for product manufacturing; Reference E page 1 paragraph 3 line 4-6, MPSP used by suppliers to meeting customer demands and shipping products);

the message bus comprises the Internet

(Reference A page 1 paragraph 3 line 6, internet accessibility for messaging; Reference D page 2 paragraph 7 line 2, customer service transactions, including request messaging, occur over internet);

the planning information comprises available-to-promise (ATP) supply information associated with one or more products

(Reference E page 1 paragraph 1 line 2-4, ATP provided for individual or families of products); and

the APS engine comprises a demand fulfillment engine operable to promise ATP supply to a customer in response to the product orders

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(Reference E page 1 paragraph 1 line 4, production plans provided to customer order management for ATP calculations).

MAPICS teaches developing software to run using Java on the Windows™ NT platform (Reference B page 1 paragraph 6 line 4-5). MAPICS teaches using COM_Net to allow external users access customer information regarding status of orders, pricing and availability (Reference A page 1 paragraph 3 line 6-8).

MAPICS does not teach:

the external systems comprise external ordering systems associated with customers; the requests comprise product orders from customers;

Wong teaches:

the external systems comprise external ordering systems associated with customers; the requests comprise product orders from customers.

(column 14 line 49-52, external customer uses external ordering system);

(column 14 line 49-52, product order submitted by customer).

Wong teaches allowing users external to the enterprise to enter requests (column 6 line 30-35, external users may use web to track orders, track payments and order products).

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Wong teaches that the use of the web drastically streamlines business processes that are transactional in nature (column 4 line 18-21) and automates the various aspects of running a business (column 3 line 66 – column 4 line 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the teachings of MAPICS, as discussed above, with the external systems comprise external ordering systems associated with customers and the requests comprise product orders from customers, as taught by Wong, because it would streamline business processes that are transactional in nature and automate to the greatest degree possible, the various aspects of running a successful and profitable business.

Regarding **Claim 3**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

wherein the HA server in each HA system is further operable to communicate modifications to the planning information made by the associated APS engine to the other HA systems

(Reference E page 1 paragraph 5 (MISL – Multi-Environment Site Logistics, handles warehouses in multiple MAPICS environments on one or more AS/400's).

Regarding **Claim 4**, MAPICS teaches:

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a plurality of high availability (HA) systems coupled to one or more external systems using a message bus

(Reference B page 1 paragraph 5 line 1-3, system provides connectivity across multiple sites;

Reference B page 1 paragraph 6 line 4-5, MAPICS will run using JAVA on NT platform allowing networking across a plurality of systems;

Reference E page 2 paragraph 5 line 3-4, MISL handles more than one inventory location using one or more AS/400's),

each HA system including:

an HA server operable to receive and queue requests received from the external systems and

(Reference B page 1 paragraph 3 line 1-2, High Availability AS/400 Server provides substantially continuous availability; Reference C page 2 paragraph 1 line 10, external users have internet access for inquiry);

an advanced planning and scheduling (APS) engine

(Reference E page 1 paragraph 1 line 2-3, MPSP application is an APS engine)

operable to:

receive a request from the HA server

(Reference E page 2 paragraph 6 line 1, requesting warehouse requests items from supplying warehouse);

process the request using planning information stored in memory of the HA system;

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(Reference E page 2 paragraph 6 line 2, plans generated for items for requesting warehouse)

modify the planning information, according to the processing of the request

(Reference E page 2 paragraph 6 line 4-5, supplying warehouse plans for requirements in MPSP and/or MRP as appropriate), and

generate a response to the system from which the request originated; and

(Reference E page 2 paragraph 7 line 5-7, shipping manifest created for tracking and demand and inventory updated to reflect order fulfillment to requesting warehouse)

a message manager operable to direct each request received from a system to an appropriate HA system using the message bus

(Reference E page 2 paragraph 5 line 3-4, MISL or Multi-Environment InterSite Logistics handles messaging between multiple warehouses on one or more server).

wherein the plurality of HA systems comprise:

a primary HA system operable to process requests requiring modification of the planning information

(Reference E page 2 paragraph 5 line 3-4, MISL allows more than one AS/400 to run MAPICS and to process requests between the AS/400's; Reference E page 2 paragraph 6 line 2, plans generated for items for requesting warehouse); and

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**one or more secondary HA systems operable to process requests
not requiring modification of the planning information**

(Reference D page 2 paragraph 7 line 3-4, COM_Net supports commonly requested customer service functions such as pricing, product, and order status inquiry); and

the message manager is operable to

(Reference F page 6 paragraph 2 line 3-4, a workload management algorithm determines which queue manager handles the message):

MAPICS teaches developing software to run using Java on the Windows™ NT platform (Reference B page 1 paragraph 6 line 4-5). MAPICS teaches using COM_Net to allow external users access customer information regarding status of orders, pricing and availability (Reference A page 1 paragraph 3 line 6-8).

MAPICS does not teach allowing external users to enter requests, from an external bus.

Wong teaches allowing users external to the enterprise to enter requests (column 6 line 30-35, external users may use web to track orders, track payments and order products).

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Wong teaches that the use of the web drastically streamlines business processes that are transactional in nature (column 4 line 18-21) and automates the various aspects of running a business (column 3 line 66 – column 4 line 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the teachings of MAPICS, as discussed above, with allowing users external to the enterprise to enter requests, as taught by Wong, because it would streamline business processes that are transactional in nature and automate to the greatest degree possible, the various aspects of running a successful and profitable business.

MAPICS teaches using a queue manager to direct requests utilizing resources assigned to that queue manager (Reference F page 4 paragraph 6 line 1-3, each queue manager manages its own MQSeries resources including, queues channels, and listeners).

MAPICS and Wong do not teach:

direct requests received from external systems and requiring modification of the planning information to the primary HA system; and
direct requests received from external systems and not requiring modification of the planning information to one of the secondary HA systems.

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The examiner takes Official Notice that it is old and well known in the art of queuing theory to direct different kinds of requests, including those requiring modification of planning information and those not requiring modification of planning information, to various systems in order to balance workload information and in accordance with the priority of the particular request.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of MAPICS and Wong, as discussed above, with directing requests requiring modification of planning information to a primary HA system and directing requests not requiring planning to one the secondary HA systems, because it would balance server workload and provide priority to those requests requiring modification of planning information.

Regarding **Claim 5**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

the primary HA system is further operable to communicate information to the secondary HA systems relating to modifications made to the planning information by the APS engine of the primary HA system

(Reference E page 1 paragraph 5 line 3-5, MISL handles warehouses in multiple warehouse environments on one or more AS/400's); and

each secondary HA system is operable to modify the planning information stored in memory associated with the secondary HA system according to the information received from the primary HA system

(Reference E page 1 paragraph 7 line 9-10, demand and item availability are updated accordingly in secondary and primary HA systems when items is transferred).

Regarding **Claim 6**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS does not teach:

wherein at least one of the secondary HA systems is operable to become the primary HA system in the event the primary HA system becomes unavailable.

The examiner takes Official Notice that it is old and well known in the art of business continuity and business and disaster recovery planning to have at least one backup secondary system in case a primary system fails.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of MAPICS and Wong, as discussed above, with wherein at least one of the secondary HA systems is operable to become the primary HA system in the event the primary HA system becomes unavailable, because it would provide continuity and disaster recovery necessary for a high availability environment.

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Regarding **Claim 7**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

wherein the message manager is further operable to direct each request not requiring modification of the planning information to a particular one of a plurality of secondary HA systems based at least on the number of requests that are queued in the particular secondary HA system

(Reference F page 6 paragraph 2 line 3-4, a workload management algorithm determines which queue manager handles the message).

Regarding **Claim 8**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

wherein the requests not requiring modification of the planning information comprise product inquiries

(Reference A page 1 paragraph 3 line 6-8, COM_Net allows external users access to customer information regarding status of orders, pricing and availability).

MAPICS does not teach:

wherein the requests requiring modification of the planning information comprise product orders.

Wong teaches:

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wherein the requests requiring modification of the planning information comprise product orders.

(column 14 line 49-52, product order submitted by customer).

Wong teaches allowing users external to the enterprise to enter requests (column 6 line 30-35, external users may use web to track orders, track payments and order products).

Wong teaches that the use of the web drastically streamlines business processes that are transactional in nature (column 4 line 18-21) and automates the various aspects of running a business (column 3 line 66 – column 4 line 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the teachings of MAPICS, as discussed above, with wherein the requests requiring modification of the planning information comprise product orders, as taught by Wong, because it would streamline business processes that are transactional in nature and automate to the greatest degree possible, the various aspects of running a successful and profitable business.

Regarding **Claim 9**, MAPICS and Wong teach the limitations of Claim 4 above and MAPICS teaches:

wherein each HA system further comprises a transform library operable to:

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receive the response from the APS engine and modify the response to a format appropriate for the external system for which the response was generated; and

receive a request from an external system and modify the request to a format appropriate for the APS engine included in the HA system.

MAPICS teaches using EDI, which contains means to transform and modify requests and responses internal and external to the system as required (Reference G page 1 paragraph 2 line 1-6). It is also old and well known in the art that XML provides transform libraries (XSLT) which provide style sheet translation so that data formatting can be transformed from one source to another.

Claims 10 and 29 recites limitations similar to those addressed by the rejection of **Claims 2-9** above, and are therefore rejected over the same rationale.

5. **Claims 15-20 and 22-28** are rejected under 35 U.S.C. 103(a) as being anticipated by MAPICS software in view of Wong US 6,115,690 and further in view of DataMirror's software product.

DataMirror software is described in the following documents:

BusinessWire, May 25, 1999, "DataMirror High Availability Suite wins in IBM Powered by AS/400E Program", hereafter referred to as Reference A.

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Web.archive.org's DataMirror.com webpage of February 10, 1999, "High Availability Suite", hereafter referred to as Reference B.

Web.archive.org's DataMirror.com webpage of December 6, 1998, "DataMirror Products", hereafter referred to as Reference C.

Claim 15 recites limitations addressed by the rejection of **Claim 4** above, except for:

generate a replication message including information reflecting the modifications made to the planning information by the primary HA system; the HA server further operable to communicate the replication message to one or more secondary HA systems that are coupled to the primary HA system and to the external systems, each secondary HA system operable to modify a local copy of the planning information stored in memory of the secondary HA system according to the replication message.

DataMirror teaches:

generate a replication message including information reflecting the modifications made to the planning information by the primary HA system; the HA server further operable to communicate the replication message to one or more secondary HA systems that are coupled to the primary HA system and to the external systems

(Reference B page 2 paragraph 1 line 1-3, database transactions capture from production systems and replicates to one or more backup servers),

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each secondary HA system operable to modify a local copy of the planning information stored in memory of the secondary HA system according to the replication message

(Reference B page 2 paragraph 3 line 7-8, backup systems can assume operation of primary system).

DataMirror teaches that it's software ensure that data is distributed, available, effectively managed and accessible anywhere in the world in real time (Reference A page 1 paragraph 7 line 3-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of MAPICS and Wong, as discussed above, with generating a replication message including information reflecting the modifications made to the planning information by the primary HA system; the HA server further operable to communicate the replication message to one or more secondary HA systems that are coupled to the primary HA system and to the external systems, each secondary HA system operable to modify a local copy of the planning information stored in memory of the secondary HA system according to the replication message, as taught by DataMirror, because with would ensure that planning data is distributed, available, effectively managed and accessible anywhere in the world in real time.

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Claims **22 and 28** recite limitations similar to those addressed by the rejection of **Claim 15** above, and are therefore rejected under the same rationale.

Claims **16-20 and 23-27** recite limitations similar to those addressed by the rejection of **Claims 2-9** above, and are therefore rejected under the same rationale

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGS

JGS 7-18-05

Susanna Diaz
SUSANNA M. DIAZ
PRIMARY EXAMINER
AU 3623